

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: September 10, 1996
Date Received: September 5, 1996
Project: Metro Self Monitor, PO #M54453
Date Samples Extracted: September 5, 1996
Date Extracts Analyzed: September 9, 1996

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M54453	0.20	0.30	0.21	0.12
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 72457 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.20	0.21	5	0-20
Copper	mg/L (ppm)	0.30	0.32	6	0-20
Nickel	mg/L (ppm)	0.21	0.26	21a	0-20
Zinc	mg/L (ppm)	0.12	0.09	29a	0-20

Laboratory Code: 72457 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery		Acceptance Criteria	Relative Percent Difference
				MS	MSD		
Chromium	mg/L (ppm)	5	0.20	105	100	80-120	5
Copper	mg/L (ppm)	5	0.30	100	98	80-120	2
Nickel	mg/L (ppm)	10	0.21	104	100	80-120	4
Zinc	mg/L (ppm)	5	0.12	104	99	80-120	5

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery		Acceptance Criteria	Relative Percent Difference
			MS	MSD		
Chromium	mg/L (ppm)	5	106	109	80-120	3
Copper	mg/L (ppm)	5	101	106	80-120	5
Nickel	mg/L (ppm)	10	105	107	80-120	2
Zinc	mg/L (ppm)	5	104	106	80-120	2

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

September 10, 1996

**INVOICE # 96ACU0910-1
DUPLICATE COPY**

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M54453: Results of testing requested by
Gerry Thompson, Project Manager for material submitted on September 5,
1996.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due



\$ 65.00

KNJ AI
9-5-96
1:30pm

Send Report To: ASKAN Copper Work Contact GERARD A. Thompson
 Company ASKAN
 Address 628 Hawthorne St Seattle WA 98134
 City, State, Zip Seattle WA 98134
 Phone # (206) 382-8577 FAX # (206) 382-4309 Date 9-5-96

SITE NO.		PROJECT NAME		PURCHASE ORDER #	
7201		metro self maintain		M54453	
SAMPLERS (signature)				PROJECT LOCATION	
[Signature]				3200 6th Ave.	
REMARKS				SAMPLE DISPOSAL INFORMATION	
				<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Received by: 	GERALD A. Thompson	ACW	9/5/96	1:18
Received by: 	John P. Wright	F + B Inc.	9-5-96	1:18
Received by:				
Received by:				

06/25/96

AKC-0011986

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

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September 10, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on September 5, 1996 from your Metro Self Monitor, PO #M54453 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

keh
Enclosures
ACU0910R.DOC